

INTERIM DATA SHEET

NEW *Ascorlight*[®] 680

HIGH PERFORMANCE 2400 WATT-SECOND ELECTRONIC FLASH FOR THE INDUSTRIAL PHOTOGRAPHER AND COMMERCIAL ILLUSTRATOR

The High Performance ASCORLIGHT 680 has been designed to accommodate the stringent demands of Industrial Photographers and Commercial illustrators. Combining advanced styling, beauty and efficiency, this versatile, high-powered, light weight electronic flash equipment provides the exacting fast-working photographer with a fast-recycling performance and the production of absolute uniform exposures - picture after picture - job after job.

The ASCORLIGHT 680 employing a single 10" light makes possible a high-powered main light for large sets, without the usual heavy weight associated with equipment of this power.

The ASCORLIGHT 680 Power Supply can operate two lights at 1200 watt-seconds each or four lights at 600 watt-seconds each. By using the AL630ALight Assembly or the new ASCOR Combination North Sky Bank, the full 2400 watt-seconds can be used with one light source.

A complete studio package can be rounded out by selecting from the many varied light assemblies in the Series 600 line, ranging from folding Reflector assemblies bounce to spots. The ASCORLIGHT 680 is fitted with integral roller casters for ease of moving the Power Supply around the Studio.

FEATURES:

- ◆ Newly designed Circuit Breaker System offers maximum equipment protection without troublesome fuse replacement.
- ◆ Improved Ready Light System easily observed from afar in brightly lit room.
- ◆ Built-in Discharge Circuit.
- ◆ Extra AC receptacle for extension power.
- ◆ New sensitive 2D21 Trigger Circuit for reliable operation of shutter sync and photo tube.
- ◆ High quality Silicon Rectifiers used throughout for maximum dependability.
- ◆ Independent Modeling and Power Circuits separate power light indicator. Push to flash button.
- ◆ Heavy-duty Military Type Light Connectors.
- ◆ Completely voltage regulated for light output stabilization, even when line voltage may vary from 105-125 volts.
- ◆ Built-in Light Stand Mounting Bracket for mounting 10" light close to Power Supply.

SPECIFICATIONS

2400 watt-seconds storage energy

105-125 volt 50-60 cycle input. 7.5 amps average, 500 MA idle

Operating voltage - 900 volts

Recharge time to 84% of full voltage: 5 sec. - to 100% 10 sec.

Fusing - Circuit Breaker

Weight 57 pounds

Size - 20" high, 17-1/2" deep, 8" wide. Two rigid carrying handles on sides of Power Supply.

Power & Ready Light Indicators

Full Power on one light: 1/200 second.

Light Output with ASCOR Combination Sky Bank 20,000 Beam Candle Power Seconds 86°

Output with AL630 10" Light Assembly 75,000 Beam Candle Power Seconds 55°

GUIDE NUMBERS WITH COMBINATION SKY BANK

Ektacolor CPS Professional Film

(E.I. 100) 360

Ektachrome Daylight Professional Film

(E.I. 50) 260

GUIDE NUMBERS WITH AL630 10" LIGHT ASSEMBLY

Ektacolor CPS Professional Film

(E.I. 100) 750

Ektachrome Daylight Professional Film

(E.I. 50) 480

BERKEY TECHNICAL CORP.

25-15 50th ST., WOODSIDE (NYC) NEW YORK 11377 U.S.A.

DIVISION



INTERIM DATA SHEET

NEW *Ascorlight*[®] **660**

**HIGH PERFORMANCE
800 WATT-SECOND ELECTRONIC FLASH
FOR THE INDUSTRIAL PHOTOGRAPHER
AND COMMERCIAL ILLUSTRATOR**

Modern advanced styling, beauty and efficiency has been built into the new versatile, high-powered, lightweight High Performance ASCORLIGHT 660 800 watt-second electronic flash. Designed with the exacting demands of the modern-day Industrial Photographer, Commercial Illustrator and Production School Photographer in mind, it provides the fast-working photographer with a reliable rapid recycling performance. Automatic voltage regulation and light output stabilization provides an unmatched uniformity of exposures — picture after picture — job after job.

The scope of control and exposure is insured with the availability of the extremely wide range of Series 600 ASCOR Lighting Assemblies ranging from soft shadowless illumination of the umbrella reflectors to the crisp high-guide-number lighting of scientifically designed ASCOR main lights, backlights and spotlights.

All components of the Series 600 are interchangeable within the limits of the power handling capabilities of the specific flash-tube. This versatility and interchangeability is the feature that makes ASCOR the "Choice of Professionals" who demand the best and who need dependable equipment capable of meeting the many varied fast-working requirements in today's Industrial and Commercial Photography.

FEATURES:

- ◆ New Circuit Breaker System offers equipment protection without troublesome fuse replacement.
- ◆ Improved Ready Light System is easily seen at great distances in brightly lit room.
- ◆ Patented circuitry offers top performance and reliability
- ◆ Full and half power control
- ◆ Push to flash button
- ◆ Built-in Discharge Circuit
- ◆ Extra A. C. Receptacle for extension power
- ◆ High quality Silicon Rectifiers used throughout circuit for maximum dependability
- ◆ Sensitive 2D21 Trigger Circuit for reliable operation of shutter sync and photo tube.
- ◆ No chance of damage to shutter contacts due to excessive currents.
- ◆ Provision for one to four-light operation.
- ◆ Automatic Voltage Stabilization for constant light output

SPECIFICATIONS

800 watt-second storage energy

105-125 volt 50-60 cycle Input 7.5 amps average 500 M.A. idle

Operating Voltage - 900 volts

Recharge time to 84% of full voltage: Full Power - 2 seconds to 100% Full Power, 3 seconds. Half Power - 1-1/2 seconds to 100% 1/2 power, 2 seconds.

Circuit Breaker System

Weight 27 pounds

Size 13" high, 11" deep, 8" wide.

Rigid carrying handle

Combination rotatable 8-pin syn connector, for attaching sync cord and phototube.

Independent modeling and power circuits.

Color - Berkey Blue

PERFORMANCE OF

Ascorlight **660**

800 watt-second Electronic Flash*

Light Output with AL634 44" Folding Reflector Light Assembly (umbrella) is variable from 6,000 Beam Candle Power Seconds 40°

*The Combination of the flash tube and the reflector can change the light output over a very wide range although the same watt-second capacity is used. The light output is given in terms of strength (Beam Candle Power Seconds or BCPS) plus the angle of coverage as measured at the half power point.

Guide number using AL634 10" Light Assembly with Ektacolor CPS Professional Film (E. I. 100) 450 Full Power - Half Power 300

Guide number using same Power Supply as Light Assembly with Ektachrome Daylight Professional Film (E. I. 50) 300 Full Power - Half Power 200

Guide using number AL637 44" Folding Reflector Light Assembly with Ektacolor CPS Professional Film (E. I. 100) in the 140° position (extremely wide angle) 180

Same Light Assembly used in the 40° position (narrow light beam) 300

Guide number using same umbrella assembly with Ektachrome Daylight Professional Film (E. I. 50) in the 140° position - 130

Same Light Assembly used in the 40° position - 200

BERKEY TECHNICAL CORP.

25-19 50th ST., WOODSIDE (NYC) NEW YORK 11377 U.S.A.

DIVISION



INTERIM DATA SHEET

NEW
*Ascor***COMBINATION NORTH SKY BANK**

for fashion, product photography, industrial applications, and high quality bridal and portrait work.

The ASCOR Combination North Sky Bank is an exciting, new, modern, photographic lighting design concept incorporating a 2000-watt Quartz-Iodine continuous light source and a 2400 watt-second Ascorlight electronic flash, with both producing a broad north-sky-light effect from the same 3 x 3-foot diffused optically-designed reflector that provides a soft, smooth, virtually shadowless illumination over a very wide area.

The Quartz-Iodine light source, employing four scientifically spaced 500-watt long-life lamps, may be used at full or low power for modeling when using electronic flash for commercial and fashion work, or as a soft incandescent light source by itself for bridal or portrait work and where a broad soft shadowless evenly-reflected light is required for product photography or industrial photographic applications.

Two lamp mounting bars across the face of the reflector housing contain the four Quartz-Iodine lamps and two 24-inch ASCOR electronic flash tubes. Facing multi-angled surface, they provide a light of the same intensity from every part of the broad reflector.

The electronic flash is powered by the new streamlined ASCORLIGHT 680 2400 watt-second Power Supply or any previous Series 600 ASCORLIGHT 2400 W-S Power Supply. It is used where a high-powered shadowless light source is needed in fashion photography and where extreme depth-of-field is required by the Commercial Illustrator and the Industrial Photographer.

The light housing is extremely shallow in depth, and will accept a spun glass diffuser mounted on a frame directly in front of the light. A swivel yoke allows the light to be mounted on a caster-based stand capable of raising the reflector housing to a maximum height of 10 feet. It may also be hung from the ceiling or a horizontal bar.



ASSEMBLY:

North Sky Bank Housing with 2 lamp mounting bars, 2-25 foot AC cords for the Quartz-Iodine lamps and 2-25 foot electronic flash cables with standard 600 Series 8-pin connectors.

2--ASCOR 1200 w/s flash tubes

4-- Quartz-Iodine 500 W lamps

1-- Diffuser frame with spun glass material

1-- Heavy duty stand with casters

1 - Swivel yoke mount

SPECIFICATIONS:

Housing 13 7/16" deep 36" square, weight 80 lbs. Berkey Blue.

2-- switches for Quartz-Iodine lamps. Off-High and Low power positions. Life of lamps at full power 500 hours - Low power 2000 hours

Electronic flash cables connect to ASCOR 2400 w/s Power Supply where power output may be controlled.

Heavy duty stand raises to maximum height of 10'

Maximum amps. required for Quartz-Iodine lamps, 16.7

Maximum amps. required for 2400 w/s ASCOR electronic flash, 26 amps. peak, 590 MA idle, 105-125 volt 50-60 cycle AC input.

Performance of Ascort Combination North Sky Bank
With four 120 V, 500 W 3200°K. Quartz-Iodine Lamps
Full Power

MAX. TOTAL AMPS. @ 120	5 FEET		10 FEET		20 FEET		Angle of Coverage
	Max. Intensity Foot Candles	* Beam Diameter	Max. Intensity Foot Candles	* Beam Diameter	Max. Intensity Foot Candles	* Beam Diameter	
16.7	410	8.7°	140	18°	41	36.7	86°
* Cover to half-power points							

Performance of ASCOR Combination North Sky Bank
with 2400 watt-second ASCORLIGHT 680
or earlier ASCORLIGHT Series 600
2400 W-S Power Supply

Light Output: 20,000 Beam Candle Power Seconds /86°

Guide number with Ektacolor CPS Professional Film (E.I. 100) 360

Guide number with Ektachrome Daylight Professional Film (E.I. 50) 260

BERKEY TECHNICAL CORP.
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DIVISION  **Berkey**
Photo Inc.



ASCOR
ASCORLUX

ASCORLIGHT
MEGALUME

OXBERRY



CAESAR
CAESAR-SALTZMAN



SIMMON OMEGA
CHROMEGA

BERKEY-ALDIS



COLORTRAN
SIDAC

Volume 1 / Number 2

May, 1967

NEW ASCORLIGHT 444 PORTABLE DISPLAYS OUTSTANDING PROFESSIONAL PERFORMANCE

SOLID STATE CIRCUITRY

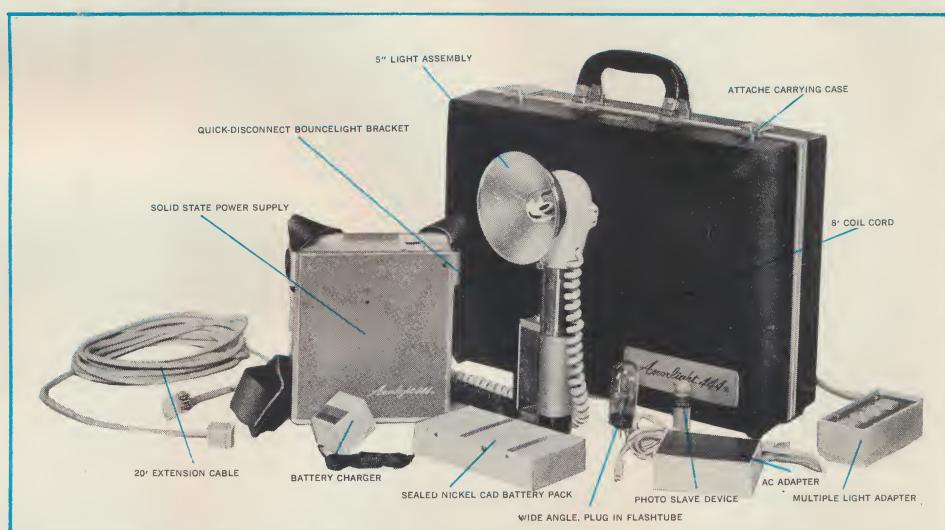
Completely Solid State Circuitry incorporating the latest space-age technology; and an advanced battery, condenser and flashtube design have been incorporated into the new ASCORLIGHT 444 lightweight high-powered portable electronic flash. These paid off handsomely in an outstanding performance when the new unit was recently put through its paces by Sidney Schulman, famed Long Island Society Photographer. Shooting two large assignments on the same day, Schulman made well over 230 photographs using the same 444 Sealed Nickel Cadmium Battery, without recharging. Recycling time was not unduly extended towards the end of the second job. "The unit was always ready for the next picture."

DESIGN RESEARCH

In setting up specifications for the ASCORLIGHT 444, ASCOR engineers had worked long on a special battery design with battery engineers and manufacturers; initiated a new program with General Electric on the F444 Flash Tube that will carry the special ASCOR label, and put a selection of new type condensers through a series of rigorous tests. The weight of the proposed unit was drastically reduced with lighter and more efficient components while still retaining the professional dependability, specified light output and also increasing the flashes per battery charge. This painstaking technological design research has been backed up by an advanced quality control program in manufacture to insure the rugged fail-safe performance obtained by Mr. Schulman and other users of ASCORLIGHT 444. Mr. Schulman, who is the most popular color photographer specializing in weddings and confirmations in the 5-town area around Woodmere, L.I., has long been a user of ASCOR and Megalume portable electronic flash equipment.

QUALITY COLOR ILLUMINATION

He was one of the first photographers in the area doing his specialty to go full color. To quote Mr. Schulman: "Quality color requires adequate illumination. I selected ASCOR Portable Equipment right from the start for its high light output, extremely good angle



The ASCORLIGHT 444 Assembly and its wide range of accessories, makes this unit one of the most versatile portable lightsources available.

of coverage, professional dependability and high number of flashes per battery charge. I often cover two weddings or confirmations a day, (4 a weekend) shooting an average of about 125 color photographs on each ceremony. I have, however, shot as many as 200 pictures on a single assignment."

With the introduction of the ASCORLIGHT 444, Mr. Schulman selected the unit for its 6-pound shoulder weight to eliminate the fatigue of carrying bulky equipment around during these large-volume color assignments.

HIGH LIGHT OUTPUT

Mr. Schulman states, "The 444's extremely high light output enables me to use a guide number of 200 on Ektacolor CPS Film (color negative) and I have the ability to capture the atmosphere of the affair by photographing large overall views of the reception, while still maintaining excellent depth of field. The new ASCORLIGHT 444 combined with my Koni-Omega Rapid Camera makes this the ideal fast-working set-up for photographing my fast-moving society clients."



Sidney Schulman shown here with his ASCORLIGHT 444 equipped Koni-Omega Rapid Camera.

SUFFOLK SUN GOES TO PRESS WITH BERKEY DIRECT SCREEN COLOR IN THREE HOURS

Michael Roberts, a photographer on the new Cowles daily newspaper, the Suffolk (Deer Park, L.I.) Sun, recently covered a local high school demonstration, shooting spot news color. Hurrying back to the Sun darkroom, he started his Ektachrome color processing at 4:30 p.m. Fifty-two minutes later a completely processed color transparency was selected and turned over to the engraving department to produce a fast set of direct screened separation negatives, using the pre-programmed "push-button" Berkey Direct Screen System. At 7:25 p.m.—just 2 hours and 55 minutes from the time the photographer started to develop his color film, the three color stereotype plates were ready for the pressroom. This amazing performance by the fledgling newspaper producing daily spot-news color had easily met the initial time schedule of 2 hours, set up by Gardner (Pat) Cowles III and Cortland Anderson, the Sun's Publisher and Executive Editor respectively, when the Berkey Direct Screen System was first put into operation at the Suffolk Sun last December.

CONVENTIONAL METHOD

Presently, the conventional method of producing spot-news color on a number of newspapers across the country is to make a set of bromide separation prints directly from a color negative or the even longer process of making a set of separation negatives from a color transparency and then making a set of bromide separation prints. It is then necessary to screen and photograph these prints in the engraving department before a set of screened separation negatives are ready for exposure to metal.

SHORT CUT

The Berkey Direct Screen System bypasses the making of bromide separation prints by producing a set of screened separation negatives directly from a color transparency, which can be quickly exposed to metal for the 3-color engraving plates. In addition, all main and flash exposure times are stored in the Berkey System Programmer console after initial zeroing of the System. Thereafter with transparency after transparency, it is only necessary to read the highlight density of the transparency and zero it into the Programmer simply by turning the enlarger lens diaphragm until the System panel meter



Mike Sullivan, Suffolk Sun engraving manager, prepares set of Berkey Direct Screened separations for the engraving process.



Edward Smith sets vacuum easel controls on the Programmer of Berkey System. Separations are exposed in less than 10 minutes.

reads zero. Such is not the case with the bromide separation print technique — here each color picture being separated requires a manual exposure determination which is both time consuming and permits the possible introduction of exposure errors in any of the three bromide separation prints.

SOMETHING NEW

Cortland Anderson, the Sun's young Executive Editor, formerly managing editor of the St. Petersburg (Fla.) Times summed up his paper's spot-news color performance with the observation, "Since we are new, we wanted to try something new—the Berkey Direct Screen System was the answer."

The young six-man Sun photographic staff, headed by picture editor Joe Maira has standardized their spot-news color coverage with three different Ektachrome transparency films in a wide variety of cameras including Nikons, Leicas, Pentaxes, Hasselblads, and Mamiyas for 35mm and 2 1/4" sq. formats.

Speeds of the various films have been raised, by 85 degree development and 10 minute processing in the first developer. Ektachrome Professional film normally rated at 50 ASA is raised to 100. Ektachrome X from 64 to 160 and Ekta-

chrome E4 from 160 to 400 ASA. Processing of color film is done manually in Nikor tanks for 47 minutes plus 5 minutes drying time.

AUTOMATIC PROCESSING

Selection of the color transparency to be published is made by picture editor Maira. The Berkey Direct Screen System utilizing a 4x5 Omega enlarger is located in the newspaper's engraving department and operated by Edward Smith who receives the transparency and prepares the mask, using Kodak Tri-Mask film. The screened separations are then exposed and processed in a LogEtronic Automatic Processor. The three processed and dried screened separations are put in register, taped together and punched for pin registration. Each one with its mask, cut to the size the color picture will appear in the newspaper, is exposed in contact with metal for 2 minutes and put through the Dow quick-etch process. From this point the three plates are beveled, punched, and press registered and rushed to the composing room where they are each fastened in their page position on full page size metal blocks enclosed in chases. Mats are then made of each and finally the stereotype plates for the press — all in less than 3 hours.

The Suffolk Sun represents an investment of several million dollars by Cowles Communications, Inc. whose other newspaper interest include the Gainesville (Fla.) Sun, the Lakeland (Fla.) Ledger, and the San Juan (Puerto Rico) Star.

FAST SCREENED COLOR

The Suffolk Sun's competition on Long Island comes from the firmly entrenched and highly successful Newsday in adjacent Nassau County and the Newhouse paper, the Long Island Press. In addition, the area is also heavily covered by the New York City dailies. It is interesting to note however, that none of these papers has ever used daily spot-news color and that the Sun in operation only several months is pioneering in the use of the Berkey Direct Screen System to produce fast daily color for its new readers. Its production time of 2 hours and 55 minutes from the undeveloped color transparency to the pressroom already exceeds the best time any other newspaper has accomplished, even with as much as 10 years experience in daily ROP color.

SPOT NEWS COLOR

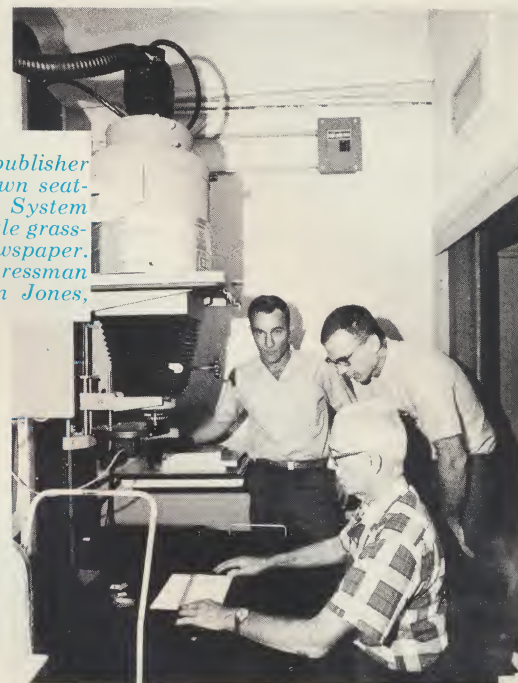
In reviewing the Suffolk Sun's short experience in the use of daily color, Executive Editor Cortland Anderson reflected that the coverage of spot news does not always lend itself to color. Woman's page features on fashions and food on the other hand can be as colorful as the woman's page editor or the photographer dictates. In any event, the Sun will continue to use daily spot news color whenever available. This continuing experiment will provide the photographic and engraving departments with a daily experience in the handling of color transparencies and the operation of the Berkey Direct Screen System to produce fast screened color separations. In addition, it will permit the composing room, stereotype, and pressroom to become thoroughly familiar with the color procedure in a daily rundown of the complete color operation so that when the BIG spot news color story comes, the Suffolk Sun will handle it just like black-and-white coverage—and in just about the same time.



Charles Glosto of Suffolk Sun engraving department removes color plate from Dow Quick-Etch machine.

Alex H. Washburn, editor and publisher of the Hope Arkansas Star shown seated at the Berkey Direct Screen System installed and operating at the little grass-roots 3,203 circulation daily newspaper. Standing are Gene Allen, left, pressman and cameraman and Billy Dan Jones, mechanical superintendent.

FEASIBLE COLOR FOR COMMUNITY NEWSPAPERS



Alex H. Washburn, the enterprising editor and publisher of the 3,285 circulation Hope (Arkansas) Star has been receiving nationwide acclaim and congratulations since his little country newspaper started to print color produced by the Berkey Direct Screen System 8x10 Omega model. Publishers of newspapers, large and small from all over the United States have been asking Washburn for information on his operation. The reaction seems to be, "If this little community newspaper can print fast inexpensive color, what are we waiting for."

Com-Print in Rockville, Maryland, a newspaper owned printing operation, has installed the Berkey Direct Screen 4x5 Omega Model to produce screened color separations for advertising and editorial color in 16 weekly newspapers circulated in Maryland and Virginia. In this instance these very small weekly community newspapers can take advantage of this modern color production in a single printing plant owned by the management of the Montgomery County Sentinel.

FAST LOW COST COLOR

Now surely, community newspapers can print color pictures and keep their costs within a competitive and profitable range. The combination of progress in the development of the Direct Screen Method, the development of the ASCOR-LUX Pulsed Xenon Light that makes exposure times reasonable, and now the systematizing of the process for preset, "in the dark" operation with the Berkey Direct Screen System makes it possible to have color plates ready for the press within less than three hours.

The Berkey Direct Screen System is the equipment that ties all of these elements together, reduces the overall cost of production, and makes low cost color work a commercial reality.

It was introduced in 1965 by Berkey Technical Corp. as a means of producing fast, low-cost screened separation negatives from a color transparency, utilizing an enlarger and an associated "push-button" Programmer for automating exposure control functions and in-dark filter selection. Pre-setting all exposures in full room light, essentially fixes the entire separation and screening procedure for reliable programmed predictable repeatability, transparency after transparency.

OPERATING PROBLEMS SOLVED

The Direct Screen method has been available for a number of years. At one time it was known as the Short Run System. There were many operating problems with the system that were solved in part by a number of commercial firms. However the improvement of materials, light sources and equipment finally made it possible to meet the many challenges of everyday production. In addition, Eastman Kodak early in 1963 introduced a method for standardizing the production of a set of four direct screened separation negatives from a color transparency.

Because of this method's manual operating procedures, necessitating a new set of exposures for each set of separations, along with manually changing filters, exposure time, vacuum staging, etc., and the unwieldy "in dark" operations, a way was sought to solve the problem.

Arve Jensen and fellow engineer, Kjell Aubert, working in Norway with the firm of J. L. Nerlien, began experiments with a system to automate the Kodak method, Jensen handling the enlarger and system design, and his associate the electronic circuitry. Their work finally proved successful and an automated Direct Screen System was built.

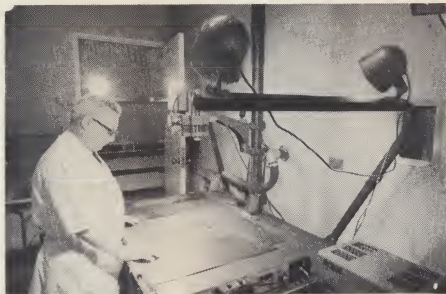
(Continued on Page 7)

A PHOTOGRAPHIC VISIT TO NATIONAL GEOGRAPHIC

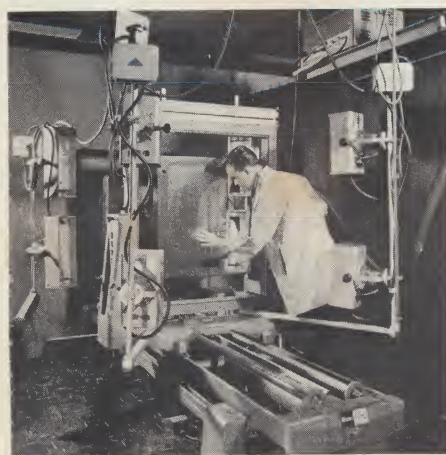
A visit to the world famous photographic operation at the National Geographic Society in Washington, D.C., is not really complete unless it is guided by the grand-pere of Geographic photography, and the man responsible directly or indirectly for its many unique applications of functional photography, National Geographic Laboratory Chief Edwin L. (Bud) Wisherd.

He joined the Geographic as assistant to its one photographer 47 years ago. He rose to photographer, making thousands on thousands of pictures for publication, including the largest picture story ever published in the Geographic, before assuming his present post.

Down through the years he has worked closely with Harry L. Parker, presently the Executive Vice President of Berkey Technical Corp., on special applications of ASCORLIGHT and ASCORLUX equipment used by the Geographic.



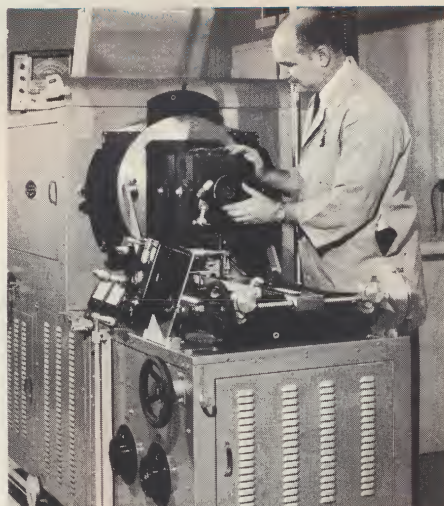
A special ASCORLIGHT 1000 w/s four-light electronic flash assembly being used with a 70mm camera for fast, quantity small copy work.



A double set of ASCORLUX Pulsed Xenon Arcs, front and backlight the easel of this Robertson Camera used for large copies and map making.



An 8000 watt ASCORLUX Printing Lamp employed in the Geographic map making operation.



A special custom-made Caesar horizontal Enlarger using a Quartzline Light Source runs along its 12-foot track to produce giant color photo murals and maps.



This Lanston camera equipped with ASCORLUX Double Deck Camera Light Assemblies is used in the same room with the Caesar Registration Punch (foreground) for large copy work and map making.



Edwin L. (Bud) Wisherd, Lab Chief and Carl M. Shrader, head of the Photo-mechanical Reproduction Section look over a patented Multiple Head Registration Punch, designed and built specially for the Geographic to their specifications by Michael Caesar. It holds in hairline register as many as 40 pieces of film or drawing material in the Geographic map making operation. The Caesar company is an affiliate of Berkey Technical Corp.

CAESAR ISSUED RE-REGISTRATION PUNCH PATENT

An intriguing background story concerns the recent issuance of patent No. 3290975 covering a multiple head Re-registration punch for map reproduction to Michael Caesar, formerly of Caesar-Saltzman and now affiliated with Berkey Technical Corp.

Several years ago Edwin L. (Bud) Wisherd, Chief of the National Geographic Photographic Laboratory and Carl M. Shrader head of the Geographic's photomechanical reproduction section of the lab decided to review the Geographic map-making procedure. At the time the intricate drawings for the maps were on huge sheets of paper, which were sent to a commercial photolithographer for reproduction. To get them flat, the photolithographer positioned them on a copyboard with hundreds of pushpins, in every blank space available on the surface of the map. The images of the pushpins were removed from the glass plates the lithographer used by opaquing and etching. Corrections done by hand on the glass plates themselves took weeks. Only one man at a time could work on a piece of original art. Schedules were missed by months. And while skilled cartographic artists were getting scarcer, the Geographic's plans for more maps were getting bigger.

FLEXIBILITY AND CONTROL

Together Wisherd and Shrader sought to work out a system. As long as the maps were to keep up with the fast changing world news, both political and scientific, they proposed to bring the process into their own photographic operation for greater flexibility and control.

The next principle was to abandon glass plates in favor of duPont's then relatively new Cronar polyester base films—if a way to achieve exacting register with them could be worked out. Then came the greatest change in policy—have cartographers work on translucent stable-base drawing materials, one sheet to each specialized aspect from ocean tints to city names. Thus by subdividing the original art, as many as 40



The large 40x48 inch Caesar punch shown in operation at the National Geographic Magazine.



Michael Caesar shown at the Woodside plant with the small punch used at Geographic.

simultaneously on what would end up as a single map.

LABOR SAVINGS

Wisherd and Shrader projected that such a system would do three things. It would drastically cut the lead time required to make a map. The division of labor would permit scarce and specialized cartographic artists to ration their work to jobs only they could do, while less experienced workers could handle the less complex jobs. And it would make possible correcting one sheet without upsetting the work being done on other sheets. Shrader refers to this subdividing the art as the "presep" for pre-separation.

The hair-raising implication of presep was that every one of as many as 40 cartographers and artists could work on pieces of film or drawing material that would have to be in hairline register during the months that a map project might be underway, or even years later when the map had to be revised or updated.

PRECISION

This precision was the most challenging aspect of the technical problems facing Wisherd and Shrader. To surmount it, they devised a whole set of techniques. One of the first was the problem of registration.

This demanded a punch built on a light table so that images could be registered manually with a high power glass before punching. It also required that a master sheet could be punched, and then held in position while all the other sheets were registered to it and punched.

The films, each photographed separately would be processed and dried before any register was accomplished, so that the register punch compensated for dimensional changes or position errors.

"RECOVERY REGISTRATION"

Attempts to have custom punches built to these rigid specifications by a number of manufacturers were not successful. Failing to find a system to fit the requirements, Wisherd invited an old friend, Michael Caesar to come to the Geographic to study the new map making procedure and make a register punch. During the ensuing meeting with Caesar, it was then decided on "recovery registration" on one punch from 8x10 through 40x48 films. This would permit use of the precision Lanston camera to its full advantage.

Michael Caesar went back to his laboratory to work out the details of the re-registration punch that were evolved during his meeting at the Geographic with Wisherd and Shrader. In April, 1964 he had completed the design and submitted a proposal of re-registration to the Geographic and an order was placed.

ACCURATE RE-REGISTRATION

The new punch had completely overcome previous difficulties of punch registration by providing both a method and a re-registration system which utilized separate registration holes in which separate register pins could be conveniently fitted to accurately re-register a multiple set of negatives. Caesar had accomplished this by providing an easel fitted with at least one punch having a flush-mounted die opening. Flush mounted bushings were provided and spaced from the punch opening at a convenient location so that the registry pins could be easily fitted to accurately re-register the negatives.

The delivery day of the new punch to the Geographic was freezing cold. Caesar, fearing that the extremely low temperature might affect the accuracy of the system, insisted on it being taken down to Washington, D.C. in a heated truck.

SMALLER MODELS ADDED

Following the successful use of the new punch, two smaller models have been added (8x10 - 20x24). All fit one to the other so accurately that a 20x24 film punched on one punch will fit for re-register on the other two.

Since their installation, the punches have completely revolutionized the map making operation at the Geographic. All new maps being made and old ones being remade, are being punched for recovery registration so that five, ten or more years from now, map changes will be simply map on the necessary film sheet rather than re-shooting every negative in the set. The corrected sheets previously punched for re-registration are now quickly put back together with pin-point accuracy.

The system as originally visualized by Wisherd and Shrader and carried through with the inventive genius of Michael Caesar, has drastically reduced the lead time in map preparation and resulted in a tremendous saving in cartographic artist man-hours — which is what they set out to do in the first place.

BERKEY TECHNICAL CORP. ANNOUNCES SEMINAR CENTER AT WOODSIDE, N.Y.C.

With the tremendous acceptance of the Berkey Direct Screen Color Separation System by Graphic Arts and Newspapers to produce consistent, fast, inexpensive, high-quality screened color separations, Herbert A. Hollander, Vice President in charge of Sales at Berkey Technical Corp. has announced the operation of a Berkey Direct Screen Training Seminar Center at world headquarters, Woodside, New York City.

TRAINING AND INDOCTRINATION

Staffed by Arve Jensen, co-inventor of the Berkey System and presently its Product Manager and Michael Dillon, this unusual service will be available to purchasers of the Berkey System, Graphic Arts and Newspaper engraving department groups and persons interested in training and indoctrination in the use of the Berkey Direct Screen Color Separation system. Seminar training sessions may cover a single day to several days depending on the desire of the person or group attending.

CRITIQUE AND EVALUATION

Sessions will include theory and application of direct screening and operation of the Berkey Direct Screen System equipment. Use of training aids and blackboard illustrations will be the preliminary steps to each student making his own set of screened color separation negatives from a color transparency. He will then follow this through the automatic development of his exposures to making a set of color-key proofs. The completed work will then be given a critique and evaluation by the Seminar faculty.

It is hoped that every franchised Berkey Direct Screen System sales group, purchaser or prospective user will avail themselves of this training seminar service in the booming popularity of automated direct color screening brought on by the introduction of the Berkey Direct Screen System.

GROUP ATTENDANCE

Recently a large group of Chemco technical sales representatives attended these training and indoctrination sessions at Woodside as well as members of the American Newspaper Publishers Assn. Research Institute, the Hearst Newspapers and many owners and technicians from Graphic Arts houses.

Arrangements for attending these seminar sessions may be made by contacting Arve Jensen at Berkey Technical Corp., 25-15 50th Street, Woodside, (N.Y.C.), N.Y. 11377 (Area Code 212) 932-4040.



Left to right, Bob Von Dwingelo, Berkey Tech Eastern States technical sales representative, checks out set of screened separations with Dieter Olbert, Berkey Photo Canada technical sales rep.



Herbert A. Hollander (left, behind processor) observes operation of Seminar Center as 14 members of Chemco technical sales force attended recent session for training and indoctrination.



Ian Gillespie, Berkey Photo Canada technical sales rep., shown seated at Programmer as Arve Jensen BDSS Product Manager supervises. All Berkey Technical Corp. technical sales representatives took intensive course at Seminar.

FLORIDA PLANT MOVES INTO NEW QUARTERS

Ascor Electronics Corp. was host recently, to more than 500 visitors who attended a 3-day open house at the new, completely air conditioned, 22,000 sq. ft. plant.

Among the visitors, who came from all parts of the country, was a group of 150 Graphic Arts Equipment & Supply Dealers and more than 100 photojournalists who were in Miami attending a seminar at the University of Miami.

Ascor Electronics is one of the Berkey manufacturing facilities for Ascorlux Graphic Arts, and Ascorlight Photographic Lighting Equipment. Ray Whiteley, general manager of the Florida plant, extends an open invitation to all photo and graphic arts dealers and users to visit the plant and see the line of Berkey Quality Products on display in the modern showroom.



BERKEY DSS PROVIDES SPEED AND ECONOMY AT COLORITE, INC.

"We have always been alert to any process which will increase production and do a job more economically without sacrifice to quality," is the observation of John J. Trinkl, Jr., describing the screened color separations performance of the Berkey Direct Screen System now in use at Colorite, Inc., specializing in Graphic and Custom Reproductions, in Kansas City, Missouri. "We feel that the Berkey Direct Screen System is just such a tool."

QUALITY COLOR SEPARATIONS

Colorite, Inc. has been in business since 1961 when Carol Groves, its president and Trinkl formed the company. They specialize in quality color separations and also supply fully assembled positives, ready for plating. From a very modest beginning with two employees and one 31-inch Brown camera, they have grown to 12 employees and added a 41-inch Robertson Tri-Color overhead camera using ASCORLUX Pulsed Xenon Arc lighting and the Berkey Direct Screen System employing the Caesar-Saltzman enlarger. Processing of the direct screened separation negatives is automated through use of a Pakorol-G 24-inch processor and a 24-inch Kreonite nitrogen burst processor for continuous tone separations. In addition they have now moved to newer and larger quarters.

BERKEY SYSTEM CHOICE

Trinkl continued to give his reasons for selecting the Berkey Direct Screen System, "Until now we made no serious attempt to produce direct screen negatives from color transparencies because of the length of the exposure required and the lack of good control to produce balanced separations." Trinkl was referring to use of the Kodak Direct Screen Method manually and employment of a conventional enlarger with a Tungsten light source. With the Berkey System, an automated "push-button" Programmer controls all main and flash exposures and filter selection. After initial zeroing-in of the first good quality transparency, all such exposure information is stored in the System. Thereafter, transparency after transparency, it is only necessary to read a highlight area of the projected color transparency with the System light meter probe and turn the enlarger lens diaphragm until the panel meter on the Programmer reads zero. The stored exposure information is now matched to the color transparency in the enlarger.

Instead of a relatively low level Tungsten light source, the Berkey Direct Screen System employs the famed ASCORLUX Pulsed Xenon Arc light source and in the case of the Caesar-Saltzman enlarger used in the Colorite, Inc. Berkey System installation, a 4,000 watt PXA lamp is used. This results in drastically reduced exposure times as opposed to conventional enlarger light sources.



Howard Warner, Berkey Technical Corp. technical sales representative supervises installation of 8x10 Berkey Direct Screen System with Caesar enlarger at plant of Colorite, Inc. in Kansas City, Missouri. Others are rear (left to right) John Trinkl, President of Colorite, Paul McWilliams, Eastman Kodak Stores Graphic Arts Sales, and Ed Brown, foreman of the Colorite Color Department.

CUSTOMER APPEAL

Trinkl went on to say, "We have just begun to use the Berkey Direct Screen System, but from the first set produced, it was obvious that we really had something to appeal to our customers." He added, "In our opinion the Berkey System can be used to produce not only economy color reproductions but also top quality results incorporating under color removal. As for the speed of direct screening with the Berkey System, we are able to produce three full sets of direct screened separations in one hour. This includes registration of the transparency and mask, sizing of the image, exposing the four separations and processing."

Trinkl concluded his praise for the Berkey Direct Screen System by saying, "As we at Colorite become more familiar with all aspects of the Berkey System, I am confident we will improve on this already outstanding performance."

FEASIBLE COLOR (Continued from Page 3)

ASCORLUX IN SYSTEM

Harry Parker, Executive Vice President of Berkey Technical Corp. of Woodside, N.Y.C. worked with Jensen in incorporating the ASCORLUX lamp in the new system, concluded negotiations with J. L. Nerlein for worldwide sales and production rights of the Direct Screen System. Arve Jensen, co-inventor of the System, is now Product Manager of the Berkey Direct Screen System here in the United States and is based at Woodside, N.Y.C.

NEWSPAPER R.O.P.

Newspapers here in the United States are employing R.O.P. color in increasing numbers each year. Some use color negative materials from which they make three bromide separation prints for the engraving department. Others manually produce separation negatives from color transparencies. Whichever the case, new exposure times are required with each picture to be reproduced, increasing chances for error, lessening control and predictable results, in a time-consuming, tedious, expensive operation.

The daily use of advertising and editorial newspaper color, especially spot news color, is the breakthrough now made possible by the Berkey Direct Screen system.

TWO HOUR COLOR

Experience in sports and spot news color photography has shown that it is possible to have a set of three color plates ready for the press two hours after a color transparency is placed in the Berkey Direct Screen System to make a set of screened separations.

The cost of color separation platemaking equipment on the market today

employing mechanical metal etching to produce a set of color plates from a transparency or color photograph, is often more than triple the cost of the Berkey Direct Screen System even if an automatic processing machine is added to the cost. Complete cost of the 4x5 Berkey Direct Screen System is \$5,800; the 8x10 Omega model is \$9,725. It should be noted that the cheapest electronic scanner costs about \$35,000.

DRASTIC COST REDUCTION

A Berkey Direct Screen System will more than pay for itself when used to produce sets of screened color separations in a job shop operation, along with being used conventionally in daily newspaper work. Small newspapers can drastically reduce operating costs by such job shop screened color separation work available around their communities.

In an era of television news, concentrating on spot news, where the event is often seen by the viewing public within minutes after its occurrence, the ability of a daily newspaper to employ the Berkey Direct Screen System to print FAST-INEXPENSIVE spot-news color several hours after a sports or news happening, is the most important newspaper color advance since the introduction of R.O.P.

READER INTEREST

A new era for reader interest, quality, and effectiveness was opened for community newspapers when it became economically feasible to print black and white pictures. Now the Berkey Direct Screen System opens another new era that makes it possible for community newspapers to take part in the "color explosion" and to compete in attractiveness and interest with other media.

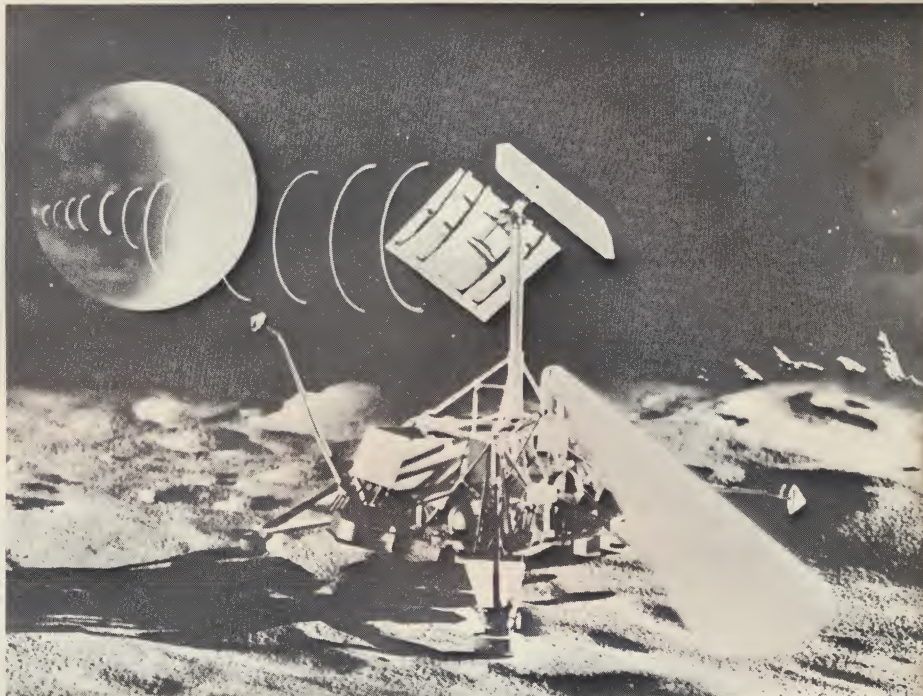
ANIMATION: ITS HISTORY, TECHNIQUES, APPLICATIONS

A book on animation that takes the reader through the historical backgrounds of animation, and then step-by-step through the techniques to handle this medium, has been clearly presented and documented in a thoroughly professional approach by Professor Roy Madsen, Ph.D. of the San Diego (Calif.) State College. Dr. Madsen is the Director of Cinematography in the Department of Radio and Television at the college. He has covered his subject in fifteen chapters plus the Appendix, in which he traces the birth and growth of animation, its concepts and language and then to the foundation or keystone of the medium, the animation stand.

The book is being published as a collaborative effort between Oxberry (Berkey Technical Corp.), regarded as a standard of the industry in the design and manufacture of animation cameras, and stands, and Unitech Division, AES Corp., a subsidiary of Simon & Schuster, Inc., with publication slated for this summer.

Other chapters cover, The Animation Studio and Basic Field Planning, The Filmograph, Script, Storyboard, Film Style and Drawing Animation, Cels, Rendering, and Special Uses, Backgrounds and Titles, Exposure Sheets, Sound and Multiple Exposure Techniques are thoroughly covered. Dr. Madsen by the use of a number of drawings describes the animation of objects by use of cutouts and puppets along with unusual animation techniques and finally, The Production Sequence.

While the book takes a very professional approach in its description of the medium, it should be understood that animation is not only a tool of Holly-



Use of miniature models and a suspended sphere plus animation drawing gives life and movement to space age instructional projects.

wood cartoon makers and television commercials, but has been used with amazing success by students in producing instructional animation for classroom use.

Students of high school age at Horace Mann School in New York City, who had no special training in the supposedly intricate art of animation, have been producing such successful films. They have received the "Golden Eagle" award from the Council on International Non-Theatrical Events (CINE) for their film, "Animation Goes To School." The film was selected to represent the United States in various film festivals abroad. It and a great number of others have been produced by students under the direction of Mr. George H. Bouwman, using an Oxberry Animation Stand.

Blackboard drawings, done in connection with a graduate course in theatre history at New York's Columbia Uni-

versity had been used to show the physical development of the stage. It was noted by Mr. Bouwman that they needed movement to augment their instructional function. As a result he and the course instructor developed a shooting script for an 18½ minute film titled, "The Stage Evolves." The drawings, recording and animation were all done by the Horace Mann School students and the films have since been used by Columbia University and other institutions in English classes and Theatre Departments.

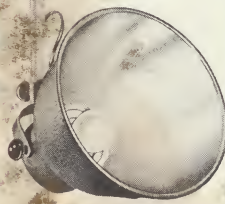
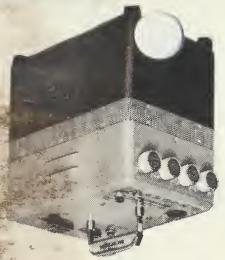
The work by the Horace Mann students dramatizes the fact that animation can be done by almost anyone who wants to use the technique to provide its unique educational and training advantages. Animation: Its History, Techniques, Applications, can be an excellent text book, Oxberry Animation Equipment, the basic tool.

BERKEY TECH NEWS

Published by
BERKEY TECHNICAL CORP.
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New York 11377

JOHN REIDY
Editor

Ben Wakes, Production Manager



MODEL A614F

An efficient, portable, wrap-around light source, excellent for bounce effects. Equipped with the M624 44" Folding Reflector. The light pattern is variable from a broad 140° spread to a concentrated 40° spread. Flashtube circles shaft of the reflector and can be positioned at any point for the amount of light spread desired.

Power Supply accepts a bracket which supports the S601 Standpost. This way a compact arrangement can be made to mount the light unit right at the power supply.



MODEL A614G

Designed specifically for the photographer doing both bounce and direct lighting. Included is the S602 Counterbalanced Mounting Bracket, which holds both the AL634 10" Light Assembly and the M625 44" Folding Reflector, giving the photographer the flexibility needed for bounce illumination and enables him to remove the folding reflector when a direct light is required.

MODEL A614E

Lightweight, Portable 800 watt second trial Photographer and Commercial Illustration Features:

1. Continuous Duty.
2. Automatic voltage regulation and light output stabilization.
3. Reliable, fast 3 second recycling. Full power to 100% light output. Half Power, 2 seconds to 100% light output. 1 1/2 seconds to 84.1% light output. (Rated recycling time in accordance with A.S.A. Standards, a 1/2 f/stop from 100% light output.)
4. Light Output—30,000 BCPS/55° Kodachrome II Guide Number with one light (full power 220—half power 160). Ektachrome EI 50 Guide Number with one light (full power 320—half power 220).
5. Circular Plug-in Flashtube for more effective light on the subject.
6. Low-cost, long-life Modeling Lamp incorporated with flashtube delivers true modeling.
7. Push Button Operation for full and half power control.



MODEL A620C

Makes possible a high-powered, main light for large sets. Power supply can operate two lights at 1200 watt seconds each or four lights at 600 watt seconds each. By using the AL630A Light Assembly, the full 2400 watt light. A complete studio package can be rounded out by selecting from the many varied light assemblies in this Series 600. Included in this Assembly is the S620A, caster base stand which provides a pocket at the base for mounting the B620B Power Supply.

COMPARISON OF LIGHT OUTPUT

The combination of the flash tube and the reflector can change the light output over a very wide range although the same w-s capacity is used. In the following specifications, and in other data throughout this brochure, the light output is given in terms of the strength of the light (beam candlepower seconds or BCPS) plus the angle of coverage as measured at the half power point. The first number is BCPS and the second number is degrees of coverage. Example:

30,000/55° means 30,000 beam candlepower seconds with 55° coverage.

LIGHT OUTPUT WITH A B614E, 800 W-S POWER SUPPLY

AL601A	10" Light Assembly	25,000 BCPS/55°
AL602	Spotlight 60° flood position	12,000 BCPS/60°
AL602	Spotlight 11" Spot Position	34,000 BCPS/11°
AL603	5" Light Assembly	17,000 BCPS/50°
AL624	Strip Light	11,000 BCPS/60° horiz.
AL627	Backlight	6,500 BCPS/90°
AL628	Spotlight 25" Spot Position	24,000 BCPS/25°
AL628	Spotlight 60° flood position	16,000 BCPS/60°
AL634	10" Light Assembly	30,000 BCPS/55°
AL637	44" Folding Ref. Light Assembly	
Variable from 6,000 BCPS/140° to 27,000 BCPS/40°		

LIGHT OUTPUT WITH B620B, 2400 W-S POWER SUPPLY

AL630A	10" Light Assembly	90,000 BCPS/55°
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LIGHT OUTPUT WITH 1 LIGHT & 4 B614E, 800 W-S POWER SUPPLIES

AL604A	4-Flash Tube Assembly	100,000 BCPS/55°
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BERKEY TECHNICAL CORP.

25-15 50th ST., WOODSIDE (NYC) NEW YORK 11377 U.S.A.

Your Authorized ASCOR Dealer



MODEL A616D

Comprises complete A614E Assembly, plus S616 Stand for mounting the B614E Power Supply at the base of the stand. A number of assemblies can be used together for maximum efficiency of operation; and by using one light off each power supply, each light delivers high light output for many types of commercial work. Although a 10" light assembly is generally used with this assembly, a complete studio package can be rounded out by selecting from the many varied light assemblies within the Series 600.

SERIES 600 ASCORLIGHT® ELECTRONIC FLASH EQUIPMENT

CONTINUOUS, HEAVY DUTY, FAST RECYCLING PERFORMANCE • PRODUCE ABSOLUTE UNIFORM EXPOSURE — PICTURE AFTER PICTURE — WITH THIS VERSATILE, HIGH-POWERED, LIGHTWEIGHT ELECTRONIC FLASH EQUIPMENT.





ASCORLIGHT[®] HEAVY DUTY, CONTINUOUS PERFORMANCE

POWER SUPPLIES AND LIGHT ASSEMBLIES FOR CREATIVE INDUSTRIAL PHOTOGRAPHERS AND COMMERCIAL ILLUSTRATORS

AL601A 10" LIGHT ASSEMBLY

Lightweight. Uses 1,000 w-s flash tube and three 60 watt modeling lamps. Makes for efficient location work since the reflector can be removed quickly and nested together with others.

AL602 8" SPOTLIGHT ASSEMBLY

Adjustable 8" Fresnel lens spot that can be adjusted from 11° tight spot to a 60° flood. Excellent for "hard" or spot type of lighting.

AL603 5" EXTENSION LIGHT ASSEMBLY

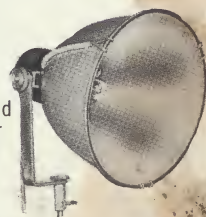
Small socket permits placing a high-powered light in places too small to accept a larger light unit. Can be used with a small 5" reflector for greater efficiency or with "bare bulb" hidden behind a subject.

AL604A HIGH POWERED 4 TUBE LIGHT ASSEMBLY

Photographers normally using the 800 w-s Power Supply sometimes run into jobs requiring more power on the main light. The AL604A can handle the power of up to four B614E Power Supplies in one reflector. Each power supply operates its own flash tube.

AL624 STRIP LIGHT

24" straight tube strip light excellent for lighting copyboards. Two lights, one on each side of a small copyboard, can be operated from one B614E Power Supply, or two can be used on each side as Double Deck Lights for larger copyboards.



B614E POWER SUPPLY

Continuous duty 800 w-s Power Supply featuring automatic voltage regulation for light output stabilization even though the line voltage should vary from 105-125 volts. It is capable of operating up to four lights continuously and has a fast recharge time of just 3 seconds to 100% light output.

Specifications:

Recharge Time — Full power: 3 seconds to 100% light output • Full power: 2 seconds to 84.1% capacity (1/2 f/stop from 100% light output) • Half power: 2 seconds to 100% light output • Half power: 1 1/2 seconds to 84.1% capacity (1/2 f/stop from 100% light output) • Flash Duration — (Determines Action Stopping Ability) — Full Power on One Light: 1/450 of a second • Half Power on One Light: 1/1000 of a second • Size: 12" long x 7" wide x 11" high • Weight: 24 lbs • Power Input: 105-125 volts 50/60 cycle • Fused with 10 amp ABC Slo-Blo Fuse • This power supply may be operated at a continuous duty cycle rate of one full power flash every 3 seconds.

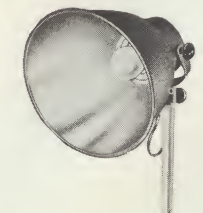
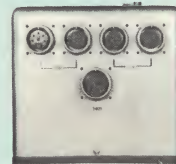
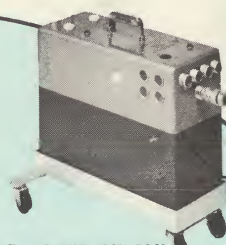
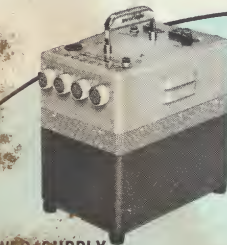
Stand Mounting Bracket M628 may be added to back panel of B614E so light stand post can be mounted close to power supply.

B620B POWER SUPPLY

Continuous duty portable 2400 w-s unit makes possible higher light output in portable equipment than was previously available. Two 1200 w-s channels can operate either one or two lights each. May be operated continuously at one full power flash every 10 seconds and may also be used for bursts of 12 full power flashes at 5 second intervals. A wide choice of Series 600 light sources available: spots, floods, strip lights or folding reflector bounce assemblies. When desired all the power can be put into one flash tube by using the AL630A High Powered Light Assembly which connects to a special high powered outlet on the power supply.

Specifications:

Recharge Time Full Power: 10 seconds to 100% light output • 84.1% capacity: 5 seconds (1/2 f/stop from 100% light output) • Flash Duration (Determines Action Stopping Ability) Full Power on one Light: 1/200 second • Size: 18" long x 7 1/4" wide x 14 1/2" high • Weight: 60 pounds • Power Input: 105-125 volts, 50/60 cycle AC, fused with 10 amp ABC Slo-Blo Fuse.



AL627A 6" BACKLIGHT ASSEMBLY

Assures even illumination on wide background areas even when placed in close. Lightweight. May be attached to portable background stand and hidden behind subject. M427 or M428 Snoot converts light into small backlight or directs light into small areas.

AL628 BABY SPOTLIGHT ASSEMBLY

For commercial and industrial photography on small sets. Variable focusing spotlight feature with adjustable Fresnel lens which permits excellent control for crisp edge lighting, plus "hard" type for dramatically backlighting and accenting texture. Control knob may be adjusted to a concentrated 25° spot up to a 60° flood.

AL630A HIGH POWERED 10" ASSEMBLY

Features connector which eliminates overload when used with lower power flash tube by switching the full 2400 w-s when plugged into a B620B power supply. Small, circular flash tube assures maximum usable light on subject.

AL634 10" LIGHT ASSEMBLY

For general all-round use with B614E Power Supply. Features circular, plug-in flash tube which incorporates long life, low cost screw-base modeling lamp with on-off switch. Reflector has bayonet twist lock for easy attachment or removal.

AL637 PORTABLE, BOUNCE-LIGHT ASSEMBLY

The light pattern is variable from a broad 140° spread to a concentrated 40° spread. The flash tube circles the shaft of the folding reflector and can be positioned at any point along the shaft for the amount of light spread desired.

WIDE CHOICE OF LIGHT SOURCES FOR EVERY REQUIREMENT

Speedlight is still just light, and the design of the unit gives you the type of control you want. The following basic rules will serve as a guide:

1. The larger the reflector or lightsource, the softer the shadows; the smaller the lightsource, the sharper the shadows.
2. The curvature of the reflector determines the spread or coverage.
3. It is desirable to have the modeling lamp and the flash from the same source. Until this is economically practical, we will have to resort to several expedients. Each of the arrangements offered have their own advantages.
4. In a raw reflector tube combination, the reflector provides a comparatively softer fill . . . and the flash tube provides a sharper direct light. The smaller the flash tube, the sharper will be the highlights . . . also, smaller flash tubes help get more efficient light on the subject.

